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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,366	08/24/2001	Anthony T. Vu	GEMS8081.092	9522
27061	7590	05/09/2005	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (GEMS) 14135 NORTH CEDARBURG ROAD MEQUON, WI 53097			SMITH, RUTH S	
			ART UNIT	PAPER NUMBER
			3737	

DATE MAILED: 05/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/682,366	VU, ANTHONY T.
	Examiner	Art Unit
	Ruth S. Smith	3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 15 February 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-25 and 27-30 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1-10, 28 and 29 is/are allowed.  
 6) Claim(s) 11, 14, 15, 17, 18, 20, 21, 23, 25, 27, 30 is/are rejected.  
 7) Claim(s) 12, 13, 16, 19, 22 and 24 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 30 is vague and indefinite in that it fails to positively set forth any structure, therefore, it is unclear as to the scope of the claimed invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18,20,21,23,25,27,30 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaufman et al. Kaufman et al. disclose an MRI apparatus including software (col. 10 lines 30-35) for using a common pulse sequence (e.g., SE, FSE, etc. see element 352) to acquire MR images in 2D or 3D (element 354) as well as adjust FOV, slice thickness, etc., depending upon an operator's selection. See fig. 4A. In addition, the computer is configured to acquire partial k-space data when in the fluoro-mode. Regarding claims 25 and 27, Kaufman et al. disclose an MR method including: identifying a desired imaging volume, entering real-time (i.e., fluoro-) mode using a modifiable pulse sequence and switching the modifiable pulse sequence between 2D to 3D mode (element 354, col. 6 lines 39-46) via user interface. See fig. 4A. 4.

Claims 18, 20, 25 and 27,30 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang. Zhang discloses an MR computer program including using a common pulse sequence (e.g., SE, FSE) to acquire MR images in 2D and 3D (element 1020) as well as adjust FOV, slice thickness, etc. (1050A), depending upon an

operator's selection. See e.g., fig. IOA. Regarding claims 25 and 27, Zhang discloses an MR method including: identifying a desired imaging volume, entering a real-time monitoring mode (including real time feedback) using a modifiable pulse sequence and switching the modifiable pulse sequence between 2D to 3D mode (1020) via user interface. See e.g., fig. IOA.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 14, 15 and 17 are rejected under 35 U.S.C. 102(e) as anticipated by Kaufman et al. or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kaufman et al. in view of Zhang. Regarding claims 11, 14, 15 and 17, Kaufman et al. disclose all of the claimed structure including a computer (24) programmed to modify a pulse sequence upon demand between a 2D and 3D pulse sequence (see element 354) as well as adjust FOV, slice thickness, etc. See fig. 4A and col. 6 lines 39-56. In addition, the computer is configured to acquire partial k-space data when in the fluoro-mode. Kaufman et al. does not explicitly address switching between 2D and 3D acquisition in real-time, however it appears that the 'real-time' switching recited in the preamble of claim 11 (of the present invention) is merely limited to intended use. On the other hand, Zhang discloses real-time sequence modification including switching between 2D and 3D pulse sequences (1020). It would have alternatively been obvious at the time the invention was made to a person of ordinary skill in the art to switch the pulse sequences of Kaufman et al. in real-time as taught by Zhang for more efficient user manipulation and feedback.

***Allowable Subject Matter***

Claims 1-10,28,29 are allowable over the prior art of record.

Claims 12,13,16,19,22,24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed February 15, 2005 have been fully considered but they are not persuasive. Applicant's arguments are not understood in that the reference cited clearly uses a common pulse sequence that it modified depending upon whether a 2D or a 3D option is selected. For example in Kaufman et al Figure 4A clearly shows that an FE pulse sequence can be selected with either a 2D or a 3D option.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth S. Smith whose telephone number is 571-272-4745. The examiner can normally be reached on M-F 7:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ruth S. Smith  
Primary Examiner  
Art Unit 3737

RSS